

***Oracle Product List Description for
USDA Portal Product Questionnaire***



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Oracle Application Server



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Oracle Application Server is an integrated, standards-based software platform that allows organizations of all sizes to be more responsive to changing business requirements. It provides all the middleware services you need to deploy and manage applications and web services, deliver personalized applications through enterprise portals and mobile devices, provide real-time business intelligence, integrate applications, and automate business processes. Support for open standards and out-of-the box interoperability with hundreds of third-party applications and tools enable you to derive maximum value from your existing investments. Features within Oracle Application Server include:

- **Enterprise Portal** (bundled with Oracle Application Server)
 - Wizard-driven page design and development features give administrators, page designers, and end users a powerful environment to create content-rich, secure, portal pages – no programming is required. Pre-built “portlets” (reusable portal components) accelerate development; just plug portlets into the Oracle Application Server framework to create an enterprise portal.
 - Access any information from any application or data source. Where coding is required, an open infrastructure and an on-line development community give developers the information, code, and tools they need to create new, portlet-enabled applications and to tightly integrate their existing applications.
 - Standards are fully embraced: HTTP, HTML, XML, SOAP, J2EE. Integrated support from the WebDAV standard allows business users to publish content directly from their favorite desktop tools.
- **Business Intelligence: Oracle Discoverer** (bundled with Oracle Application Server)
 - Ad-hoc query functionality enables end users with fast, self-service data access and enhanced analytic capabilities either via client/server or over the web.
 - Enterprise reporting capabilities support data from any source. Develop reports in any format and deliver securely to any destination.
 - Personalization uses data mining technology to enable 1:1 marketing by dynamically serving real-time, personalized recommendations to both registered customers and anonymous visitors (Oracle Personalization and Data Mining product options sold separately).
 - Business intelligence beans provide the most productive environment for extending and customizing your applications with OLAP services (Oracle OLAP product option sold separately).
- **Support for Enterprise Grids** (bundled functionality)
 - Oracle Application Server is optimized to take full advantage of cluster computing and enterprise grid deployment architectures. Add system capacity quickly with automated software and user provisioning.

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- Accommodate fluctuations in demand and changing requirements with Policy-Based Workload Management. With Oracle Application Server, valuable system resources can be allocated where they are needed most, allowing you to get more value from your existing infrastructure. Oracle Application Server's advanced security, scalability, and high availability features enable you to achieve the highest levels of service on the lowest-cost commodity hardware.
- **J2EE** (bundled functionality)
 - Oracle Application Server is fully J2EE certified and provides advanced development and deployment support for J2EE applications and web services.
 - Oracle Application Server has been optimized for extremely fast Java code execution. Multiple industry-standard benchmarks have proven that Oracle Application Server outperforms IBM WebSphere and BEA WebLogic application services and Microsoft.Net.
 - Oracle Application Server provides a productive development environment that lets developers spend less time coding and testing. All major Java IDEs including Oracle JDeveloper support Oracle Application Server.
- **Web Services and Integration** (bundled functionality)
 - Oracle Application Server unites Web services, business-to-business (B2B), data integration, and traditional enterprise application integration (EAI) technologies. Web services support is integrated with the fastest, lightest J2EE server available.
 - Advanced integration links component-based Java/J2EE applications with packaged, custom and mainframe applications. It connects to business partners via simple web services or powerful B2B protocols, and enables access to diverse data sources.
- **Single Sign-On** (SSO) (bundled functionality)
 - Single sign-on across applications, services and web sites increases security while lowering costs.
 - Centralized user provisioning ensures a single definition of users, roles, groups and access rights instead of a patchwork of security with unknown gaps.
- **24x7 Reliability** (bundled functionality)
 - Oracle Application Server features "Zero Unplanned Downtime" with end-to-end clustering, Transparent Application Failover, and the Fast Start Fault Recovery Architecture.
 - Deploy application without shutting down and restarting the application server with hot deployment and rolling upgrade support.
 - Make your applications that access the Oracle database even more available by taking advantage of Oracle Real Application Clusters for end-to-end availability across the application server and database tiers (RAC sold separately with Oracle database).
- **Performance and Scalability** (bundled functionality)
 - Improve the performance and throughput of your J2EE applications with the industry's lightest and most efficient J2EE server.
 - Turbo-charge web sites with built-in caching. By off-loading frequent web page requests to the cache, you can save money on hardware and

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software infrastructure while better managing the fluctuations in web site land.

- Incrementally scale to support thousands of users while benefiting from the highest degree of reliability and availability with end-to-end cluster support. Adding low-cost commodity hardware to clusters to enable you to scale cost-effectively.
- **Management** (bundled functionality)
 - Streamline the management of database, application servers and deployed applications using a centralized, web-based management framework. Centrally monitor and configure all Oracle Application Server components including cluster instances.
 - Administration requires less time and fewer staff members because Oracle servers can be managed from a single location.
- **Mobile and Wireless** (Oracle product options sold with Application Server)
 - Multi-channel delivery features of Oracle Application Server enable a new class of web applications that are completely device independent: develop once in XML, deploy to Oracle Application Server – and access from any small screen browser as well as any phone thanks to voice recognition.
 - Alert mobile users of important events. Based on their preference, users can receive alerts as SMS, email or as automated voice calls. Mobile services make wireless and voice applications easier to use. For instance, saving frequently used parameters (passwords, addresses, etc) so users don't need to type them in from their devices' keyboard.

Oracle Collaboration Suite



Oracle Collaboration Suite is the first product to leverage a relational database to securely, reliably and cost-effectively simplify business communications and consolidate information by reducing hardware, software and administration costs. Leveraging the Oracle Database and the Oracle Application Server infrastructure, Oracle Collaboration Suite offers customers a suite of enterprise-class messaging and collaboration applications that enables organizations to increase user productivity and service levels while reducing total cost of ownership.

Product Overview

Oracle Collaboration Suite represents the 4th generation of messaging and collaboration systems, with a three-tier, standards-based integrated suite built on proven Oracle technology. Only Oracle Collaboration Suite provides a consolidated storage layer, a fully integrated application layer, and a comprehensive, flexible access and interaction layer designed to overcome the limitations inherent in legacy communications systems: decreasing costs, better securing and managing corporate data, increasing user productivity and streamlining business processes.

Oracle Collaboration Suite provides users with access to integrated email, voicemail, calendaring, file sharing, search, and real-time collaboration capabilities from popular desktop clients such as Microsoft Outlook, web browsers and a wide range of wireless devices including PDAs, phones and voice handsets. Features within Oracle Collaboration Suite include:

- **Web Conferencing** (Oracle product option licensed separately)
 - Oracle Web Conferencing brings real-time collaboration to any enterprise, enabling employees, customers, and partners to meet online in a common, flexible environment that can support all types of online meetings across the entire enterprise. Oracle Web Conferencing is designed and developed to meet the demanding requirements of real-time collaboration across the enterprise, including the blending of real-time online meeting services into enterprise applications, corporate web sites, portals and exchanges.

Major functional components and features of Oracle Web Conferencing include:

- **Application module** – meeting creation, materials management, and archives. Allows secure access over the public internet for guests and registered users.
- **Web Conferencing Console** – flexible, real-time online meeting environment. Provides capabilities for Co browsing, Document Presentation, White boarding, Desktop Sharing, Voice Streaming, Polling, Annotation, Chat, Recording and Playback, Setting Preferences, and ability to have multiple presenters.
- **Administration** – system monitoring, reporting and management.

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Oracle Web Conferencing requirements include:

- **Support for all types of online meetings** – live help, interactive and web seminar meetings for sales, marketing, support, training and education, internal help desk, or any other functional areas.
 - **E-business context** – integration within the context of the context, commerce, and comprehensive business flows of an enterprise.
 - **Performance** – real-time performance with efficient network bandwidth use.
- **Email** (Oracle product option licensed separately)
 - Oracle Email uses the industry leading Oracle database as an email message store, taking advantage of Oracle's core competencies in providing access to, storing and managing all types of information. Highlighted features include:
 - Flashback recovery
 - Per user backup and restore
 - NNTP Server (Network News Transfer Protocol)
 - Delegated administration
 - Delegated management of mail
 - Distribution list and alias look-up from clients
 - Enhanced Virus and Spam checking capabilities
 - New Migration tool plug-ins for Samsung Contact (formerly HP Openmail) and Novell Groupwise.
 - **Files** (Oracle product option licensed separately)
 - Oracle Files increases employee productivity by enabling users to easily collaborate with their co-workers worldwide, and find files with a single search. The intuitive web interface and the support for all the familiar desktop protocols (SMB, AFP, NFS, FTP, HTTP, or WebDAV) allow users to quickly benefit from the system without additional training. Highlighted features include:
 - Files Custom workflows
 - File Sync Enhancements
 - Domain Controller Migration
 - Installation Improvements
 - **Calendar** (bundled feature with Oracle Collaboration Suite)
 - Oracle Calendar is a complete time management solution, enabling individuals and groups to efficiently manage time and organizational resources across the enterprise. A powerful time management platform built upon a centralized, real-time architecture, it combines a rich feature set with integrated services that connect calendar information across applications to optimize your business processes. Highlighted features include:
 - Enhanced resource scheduling, including hierarchical search for resources and integration with approval workflow systems
 - Web Conferencing integration

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- Standards-based SynchML synchronization
- Improved Calendar server performance, scalability and availability
- Enhanced Web Admin UI
- Calendar SDK enhancements and new Web Services toolkit
- **Oracle Connector for Outlook** (bundled feature with Oracle Collaboration Suite)
 - Oracle Connector for Outlook provides connectivity between Microsoft Outlook and Oracle Collaboration Suite.
 - Server-side rules, including out-of-office reply preferences
 - More real-time collaboration options with support for Oracle Web Conferencing
 - Performance optimizations of IMAP communications
- **Voicemail and Fax** (bundled feature with Oracle Collaboration Suite)
 - Oracle Voice Mail leverages the data world to provide scalable, traditional voicemail and fax capabilities with the advantages of unified messaging. Voice mail and fax applications are built on standard interfaces while the messages are stored in the same Oracle database as email. Support for Enterprise Computer Telephony Forum (ECTF) standards, collectively known as “CT Server”, allow Oracle Voice Mail to easily integrate with a variety of enterprise and carrier class switches. Highlighted features include:
 - Dial by name/Directory Lookup
 - Streamlined Menus and New Languages
- **Search** (bundled feature with Oracle Collaboration Suite)
 - Collaboration Suite Search consists of two components: Oracle Ultra Search, a web-based out-of-the-box search engine solution that searches across multiple repositories: relational databases, HTML documents served up by web servers, OracleAS Portal, files on disk, IMAP mail servers and more; and ‘Search Federator’ that accepts search terms from end users through the Collaboration Suite Search page and displays an integrated list of search result hits from Mail, Files and Web servers crawled by Ultra Search. Highlighted features include:
 - Support for various new attribute types, including date ranges, and list-of-values (LOV)
 - Improved Query APIs and new support for JSP tags
 - Integration with OracleAS Portal – native crawling of Portal instances
 - Crawler Extensibility API – Java API to adapt the Ultra Search crawler to index and search data sources
 - Relevance boosting – adjust the ranking of search results
- **Wireless and Voice Access** (Oracle Wireless licensed with Oracle Application Server)
 - Oracle Collaboration Suite provides fully integrated out-of-the-box wireless and voice access to email, calendar, files, address book, and corporate directory from any mobile device. Mobile employees can now retrieve/reply their email, manage their appointments, or call someone in

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their address book simply using voice from any phone. Notification capabilities allow users to receive alerts for important messages or meeting reminders as email, SMS, or voice alert. All Wireless and Voice functionality in Collaboration Suite is based on XML and J2EE standards-based OracleAS Wireless multi-modal, multi-channel service delivery platform. Highlighted features include:

- Email push support for Blackberry
- SMS access
- Coexistence with Notes and Exchange
- Personalized Look and Feel
- Web Conferencing Wireless Notifications

Oracle Developer Suite

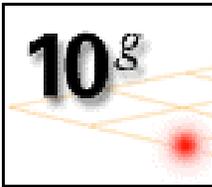


Oracle Developer Suite is a complete, integrated suite of development tools that offers unprecedented productivity at each stage of the development life-cycle. With Oracle Developer Suite, you can rapidly develop transactional Internet applications and web services using J2EE and XML, and you can instantly extend your transactional applications with business intelligence capabilities for analyzing data and publishing results. While demonstrating excellent performance with other database and application server software, Oracle Developer Suite fully leverages the power of the Oracle database and the unique full-featured, integrated capabilities of Oracle Application Server. Some of the bundled components within Oracle Developer Suite include:

- **Oracle JDeveloper**
 - Oracle JDeveloper is a J2EE development environment with end-to-end support for modeling, debugging, deploying, and optimizing e-business applications and web services.
 - Java developers can create any type of Internet application and component, including applets, applications, JavaBeans, JavaServer pages (JSP), Servlets, and Enterprise JavaBeans (EJB).
 - Integrated support for the Oracle XML Developer Kit (XDK) contains the basic building blocks for reading, manipulating, transforming, and viewing XML documents via the XSQL page framework.
 - Web services are easily integrated into any application using SOAP (Simple Object Access Protocol), WSDL (Web Service Definition Language), and UDDI (Universal, Description, Discovery and Integration).
- **Oracle Forms/Reports Developer**
 - Oracle Forms Developer offers a highly productive RAD development environment for building enterprise-class applications based on PL/SQL. Forms Developer provides an end-to-end application framework, including a set of integrated builders, re-entrant wizards, live previewers, and property palettes.
 - Applications created with Forms Developer can be deployed instantly in Oracle Application Server with OracleAS Forms Services.
 - Oracle Reports Developer allows the developer to access any data, to publish it in any format, and to send it anywhere.
 - Reports Developer provides a graphical layout editor and a wizard-driven approach that enables developers to build sophisticated reports using a declarative, document-centric, development model.
- **Oracle Designer**
 - For server design, generation and capture, there is Oracle Designer.
 - Oracle Designer enables application development teams to analyze business requirements and then design and generate systems that meet those requirements.
 - Oracle Designer incorporates support for process modeling, system analysis, database and program design, and full database and program generation.

- **Oracle Discoverer Administration**
 - With Oracle Discoverer Administrator, system managers of business intelligence systems can create and a business-oriented view of the data in the Discoverer End User Layer (EUL) by grouping related information in folders and giving meaningful names to business areas and folders.
 - Discoverer Administrator simplifies query building and analysis in Discoverer workbooks used by business users running any of the three Discoverer client tools: OracleAS Discoverer Plus, Oracle Discoverer Desktop, and Oracle Discoverer Viewer.
 - Discoverer Administrator enables the creation of calculations (including the analytic functions in the Oracle database), joins, conditions, summaries, and hierarchies for a business area.
- **Oracle Warehouse Builder**
 - Oracle Warehouse Builder in conjunction with the ETL capability of the Oracle database, helps you design, deploy and manage enterprise data warehouses, data marts, and e-business intelligence applications.
 - Oracle Warehouse Builder reduces complexity in the design and development of data warehouses and data marts by providing visually-intuitive mapping and transformation tools, drag and drop capability for dimensional data and an out-of-the-box portal solution for managing the warehouse.
 - Developers using Oracle Warehouse Builder can reduce the design and implementation time through wizard-driven user interfaces for data mapping and metadata import, and a library of predefined transformations.
- **Oracle Clickstream Intelligence Builder**
 - Clickstream Intelligence Builder provides the metadata that is the foundation of OracleAS Clickstream Intelligence. This metadata organizes the formal descriptions that define the Clickstream Intelligence data warehouse, such as transformations and database schema objects.
 - Developers extend and customize Clickstream Intelligence by using Warehouse Builder to form new warehouse dimensions.
 - Clickstream Intelligence Builder also provides Discoverer EUL that can be customized by using Discoverer Administrator to deliver views of the data that are tailored to the needs of the organization.
- **Oracle Software Configuration Manager**
 - Oracle Software Configuration Manager (SCM) streamlines development by clarifying object relationships, eliminating duplication and promoting component reuse, and assessing the impact of change.
 - Oracle SCM provides tight integration with JDeveloper including the Source Control Set-up Wizard, branching and merging for parallel development, synchronization of local file systems with SCM repository, file check-in and check-out, and viewable file version histories within the IDE.

Introduction to Grid Computing



Grid computing is a new computing architecture that effectively pools large numbers of servers and storage to create a virtual computing resource with virtually no additional cost, that no individual computer or cluster by itself can provide. The Grid Computing is analogous to Electricity (Power) Grid and the vision is to offer a (almost) dependable, consistent, pervasive, and inexpensive access to high-end resources irrespective their location of physical existence and the location of access. A Grid co-ordinates resources that are not subject to centralized control using standard, open, general-purpose protocols and interfaces to deliver non-trivial qualities of service. The *resources* in a grid can include (i) processors; (ii) storage; (iii) network bandwidth; (iv) databases, application servers, applications and so on.

In that sense Grid is a type of parallel and distributed system that enables the sharing, selection, and aggregation of services of heterogeneous resources distributed across multiple administrative domains based on their availability, capability, performance, cost, and users' quality-of-service requirements. So like any distributed system, Grid addresses various issues and challenges including: security; autonomy; heterogeneity of resource access interfaces, policies, capability, data locality, dynamic variation in availability of resources, and complexity in creation of applications.

There are four major areas of innovation that are combining together to make grid computing possible.

- **Standardization** on low-cost, high-density modular servers and storage based on technology such as Tannin processors, blade servers and Linux.
- **Consolidation and vitalization** of servers shared among one or more data centers.
- **Automation** of all day-to-day management tasks, enabling a single administrator to simultaneously handle hundreds of servers in clusters.
- **Abstraction** of infrastructure services such as identity management for applications through an application services layer using distributed computing technologies like Web services.

Oracle Application Server 10G (9.0.4) Enterprise Grid Computing features

Oracle Application Server 10G (OracleAS 10G) is next generation of Oracle9iAS enabled for enterprise Grid Computing. It enables on-demand computing across an enterprise by efficiently utilizing disparate hardware resources (CPU, Memory, Storage) available within an enterprise to provide a virtual system image. It is primarily focused on providing a completely integrated infrastructure for developing deploying and managing Internet applications, and to enable them to run in a Grid environment. OracleAS 10G provides customer's data centers to respond to changing business demands by providing runtime to associate user application with underlying infrastructure and let users convert servers to roles based on demand. Customers can deploy all their existing

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Oracle9iAS applications on OracleAS 10G without any changes to their applications and benefit for OracleAS 10G Grid features.

OracleAS Grid environment is primarily managed by Oracle Enterprise Manager(OEM), also called OracleAS Grid Control. OEM Console is the primary interface for performing all management tasks in a Grid. A reliable and scalable multi-administrator repository offers the option of cooperative management. All OEM areas of management can also be accessed from anywhere using a standard web browser. Using the Oracle Enterprise Manager product family, database administrators and IT managers can increase productivity, deliver better services, and reduce the total cost of information systems. Oracle Enterprise Manager features: (i) Unified architecture for managing the complete Oracle environment; (ii) Centralized console for single point of management; (iii) Real-time monitoring; (iv) OracleAS Cluster management. Specifically, OracleAS 10G supports the following features for Grid Computing:

- **Installation, configuration and provisioning-** In a typical Grid environment, one can have few nodes (machines) to few hundreds of nodes. Manually installing software on hundreds of nodes can be time consuming and cumbersome. Oracle automates installation, configuration and cloning of OracleAS across multiples nodes. Oracle Enterprise Manager provides a common framework for software provisioning and management across OracleAS 10G and Oracle Database 10G allowing administrators to create, configure, deploy, and utilize new CPUs and instances of the Application Server and Database as they are needed. This framework will be accessible through Oracle Enterprise Manager and will not only be used to provision new systems but to also apply patches and upgrade existing systems. Any configuration changes on a OracleAS instance be automatically propagated across the Grid without any manual intervention.
- **Resource Management and Scheduling** - Resource management is a fundamental problem in Grid-based systems. An IT administrator for the Grid would want to ensure that resources are scheduled based on precedence and resource-constraint jobs in order to find the best compromise solution based on the application requirements and system administrators preferences. OracleAS runtime monitors resource availability and consumption, and provides just-in-time computing resources based on the application needs. Oracle Enterprise manger provides partitioning of computing resources across (i) multiple OracleAS instances; (ii) components within a single OracleAS instance (iii) multiple 9iAS applications.
- **Security and Identity Management** - Security and User identity management becomes complex across Grid since resources are no longer statically tied to the applications but allocated on demand. To simplify security provisioning OracleAS provides a single, unified, standard based security model for applications based on Oracle Internet Directory, Login server and Oracle Wallet.
- **Application Management and Monitoring** - OracleAS automates complete life-cycle management of applications running on OracleAS.
 - *Configuration & Deployment:* Application can be configured and hot-deployed across the Grid on a single or multiple nodes from Enterprise manager console.

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- Job scheduler: Oracle EM provides an integrated Job scheduler to schedule application based on user criteria.
- *Performance Tuning and Debugging*: OracleAS Dynamic Monitoring Service (DMS) to collect the performance metrics and resource consumption such as CPU and Memory being utilized, I/O, Response Time, Requests/Second, Transaction Throughput etc. DMS allows you to monitor both the duration of important phases of request processing as well as status information such as the number of requests being handled at any given moment.
- **Workload management** - OracleAS provides On-demand Scalability, end-to-end high availability and failover for application deployed in Oracle Grid environment. OracleAS provides setting up declarative workload management based on user-defined metrics. OracleAS Oracle is integrating the Fault Monitoring and Notification Services between Oracle10i RAC and Oracle9iAS. This will allow Oracle9iAS to receive a failure notification should an Oracle RAC node fail and switch over the Application Servers connections and workloads to another RAC node much more quickly and efficiently.
- **Systems management and monitoring**: OracleAS 10G automates many of the low-level systems management tasks that previously consumed an administrator's time. OracleAS EM provides a centralized view on Oracle 10G environment. From OracleAS EM, OracleAS Components can be started, stopped remotely. Systems usage metrics like CPU and memory usage can be collected and analyses across the Grid. EM enables automatic death-detection of running OracleAS components and fast restart of these components across Grid.

Overview on Oracle Corporation



Oracle Corporation is the world's leading supplier of software for information management. Oracle develops, manufactures, markets and distributes computer software that helps Governments, corporations, and organizations manage and grow their businesses. Oracle's software products can be categorized into two broad areas: systems software and business applications software.

Systems software is a complete Internet platform for developing and deploying applications on the Internet and on corporate intranets. Systems software products include database management software, application server software and development tools that allow users to create, retrieve and modify the various types of data stored in a computer system. Business applications software, which can be accessed with a standard web browser on any client computer, automates the performance of business processes for financial management, procurement, customer relationship management, supply chain management, project management and human resource management.

In addition to computer software products, Oracle Corporation offers its customers a range of consulting, education and support services. Oracle also offers its business applications as an online service to customers who choose not to install their own applications. This online service delivers business applications over a network that can be accessed with any standard web browser.

The Company was incorporated in 1986 as a Delaware corporation and is the successor to operations originally begun in June 1977. It is publicly traded on the NASDAQ as ORCL.

Since its founding in 1977, Oracle Corporation has been providing software products to public sector companies. Founded in public sector technology, Oracle brings over two decades of expertise to the more than 2,000 government agencies it serves worldwide. With the industry's only full complement of solutions and services for connecting governments and citizens through Internet computing, Oracle software powers today's high-performance e-governments. In addition, Oracle Corporation's Federal Government sales organization is part of the Government, Education and Healthcare division of Oracle (OGEH).

Worldwide headquarters:

Oracle Corporation
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.
+1.650.506.7000

Founded: 1977

Employees:
43,000 Worldwide
21,000 U.S.
22,000 EMEA

For more information on Oracle visit: <http://www.oracle.com>